

From boatanchors@theporch.com Wed Aug 21 09:35:39 1996  
From: rh8421@gate.net (Ron Hankins)  
Subject: 1935 Radio Amateurs Handbook  
Message-ID: <v02130503ae402ab7ed75@[199.227.3.152]>

I have a 1935 Radio Amateurs Handbook. Anyone interested.

Ron Hankins KK4PK  
rh8421@usa.net

From boatanchors@theporch.com Wed Aug 21 20:42:32 1996  
From: Andy Wallace <wallace@mc.com>  
Subject: 390A nameplate sizes  
Message-ID: <9608212014.AA00615@taku>

----- Begin Included Message -----

From: knudsen@gymail.ih.lucent.com  
Subject: re: EAC R390As == Hammarlund

BTW, I still have no idea who built my mainframe, since the cover plate was removed (and most any brand could be screwed back on). Modules include Moto, Stew-Warner, and Progresstron, but no EAC.

----- End Included Message -----

Not necessarily! Steve Byan has a 390A he got from me with a Motorola nameplate held on with one screw; the screw holes are a different spacing.

Maybe the BAer doing the contract data should collect some on nameplate sizes, and that may straighten a few "unlabelled 390A" questions out.

73,  
--Andy  
wallace@mc.com

From boatanchors@theporch.com Wed Aug 21 20:42:32 1996  
From: Al Tirevold <tirevold@atl.mindspring.com>

Subject: Re: 390A nameplate sizes

Message-ID: <2.2.16.19960821231437.2df7b2dc@pop.atl.mindspring.com>

At 15:18 1996.08.21 -0500, you wrote:

- - - - s n i p - - - -

>Not necessarily! Steve Byan has a 390A he got from me  
>with a Motorola nameplate held on with one screw; the  
>screw holes are a different spacing.

- - - - s n i p - - - -

My R390A's, an Amelco62 and a Motorola54 have two very different nameplate sizes and threaded hole arrangements on their front panels. The Moto is wide and skinny. The Amelco is narrower and taller.

Only one screw hole from one would line up at all with the other's front panel!

Al, WA0HHQ

- tirevold@atl.mindspring.com -

Trinary-Digital-Communicator (Dots, Dashes, and Spaces)

From boatanchors@theporch.com Wed Aug 21 20:42:32 1996

From: n5off@w5ddl.aara.org

Subject: 390A tag sizes

Message-ID: <445653@w5ddl.aara.org>

My R-725 (EAC 1960) has tag size 2-5/16" X 13/16" hole centers

My R-390A (1954 Collins) is 2-13/16" X 11/16" hole centers

FYI I think Collins was the only one with the long skinny tag  
(but perhaps the late Collins had the chunky tag???)

My old 390 also has the skinny tag (Collins).

73 de tom

From boatanchors@theporch.com Wed Aug 21 20:42:32 1996

From: Glenn Finerman <GFINER@nms.com>

Subject: Re 75A-3 info

Message-ID: <s21b2dad.009@nms.com>

RE>Collins 75A-3

I believe Phil has ended my confusion... Its the "selectivity" control that selects the installed filter regardless of the mode switch setting. So with just the stock 3.1kc filter installed (as it came from the factory),

you will hear signals with the mode selector in CW.  
Has anyone tried using any other filters in place of the factory originals?  
How about R390 mech. filters? or others?...

RE>>

>Yes, you'll hear CW in the CW position if it has any  
>filter installed. If it is missing both filters,  
>you won't hear a thing!

>

RE>

>The selectivity switch has to be set to a position corresponding to  
>an installed filter for you to hear anything....

>

>Other filters are 800 cycle, 1.2 kc, and 6.0 kc. According to Jay  
>Miller's book, there is a "late" 75A3 6.0 kc filter that is  
>F 455 C 60.

Glenn Finerman N2BJG GFINER@NMS.COM

From boatanchors@theporch.com Wed Aug 21 13:49:08 1996  
From: Glenn Finerman <GFINER@nms.com>  
Subject: 75A-3 info please!  
Message-ID: <s21af602.086@nms.com>

Hello again Collins fans.

I was hoping someone could educate me once again  
on the 75A-3 receiver. I'm probably going to take a drive out to  
see the receiver that's for sale next week sometime, and I'd like  
to have a little more knowledge about the filters, what to look for  
etc... It looks like I'll be able to walk out with the receiver for around  
\$350.00...This may or may not be a good price based on the condition,  
filters, etc. ...I know there is no product detector for SSB  
but if there's no CW filter does that mean you hear nothing with the  
mode switch in CW?? As you can see I'm a bit confused!!  
weren't all the filters included standard?  
Hoping you can shed some light on this topic.....Thanks Glenn N2BJG

RE>Glen:

>As you suspect, the 75A4 has a product detector and the A3  
>does not. In addition, the A4 has bandpass tuning or the ability to shift  
>the bandpass towards either side of the mechanical filter in order to  
>slip interfering signals further down on the slope.  
>On the other hand, the A3 has a dual tuned RF stage which is  
>much more resistant to front end overload than the A4.

RE>The A3 differed from the A2 in that the A3 came equipped with  
>mechanical filters in the I.F.

These were not options? then should they be in every 75A-3 ???

From boatanchors@theporch.com Wed Aug 21 13:49:08 1996  
From: Andy Wallace <wallace@mc.com>  
Subject: Re: 75A-3 info please!  
Message-ID: <9608211634.AA00523@taku>

Glenn, and everyone...

\$350 might be a good deal for the A-3 if the condition is  
nice and if it has the filters you want.

The filters are F455B-xx where the last part is the  
bandwidth. The "31" filter is 3.1 kHz and that is  
"standard" and should be there unless someone removed  
it, in other words. There were other filters available.  
My Collins POCKET GUIDE is at home but Jay Miller is  
on the BA list so maybe he'll speak up!

Yes, you'll hear CW in the CW position if it has any  
filter installed. If it is missing both filters,  
you won't hear a thing!

There was a product detector by Universal Service Co.  
of Ohio. This might be homebrewed...I'll have to look  
at the schematic. At the very least you could make it  
non-tunable so you won't have to feed a shaft thru  
the front panel.

There's a pic of mine (control only; I'll shoot the whole  
plug-in next time) at:

<http://www.mindspring.com/~johnmb/ka1gtt1.htm>

I forget which page, just keep hitting CONTINUE  
until you see it. (And let me know what you think  
about the pictures.)

I paid less than \$350 for my A-3 with one filter and the  
plug-in, but your mileage may vary. A-4s are beyond my  
budget so for now the A-3 is fine. It's a nice-sounding

receiver. I want to slow down the AGC time, though.

So think and examine the rig carefully, and hopefully you'll be happy with yourself when you either get it or pass it up.

73,  
--Andy  
wallace@mc.com

From boatanchors@theporch.com Wed Aug 21 13:49:08 1996  
From: pmills@cyberhouse.com (Phil Mills)  
Subject: Re: 75A-3 info please!  
Message-ID: <199608211735.MAA26345@ns.cyberhouse.com>

>  
>Yes, you'll hear CW in the CW position if it has any  
>filter installed. If it is missing both filters,  
>you won't hear a thing!  
>

The selectivity switch has to be set to a position corresponding to an installed filter for you to hear anything....

Other filters are 800 cycle, 1.2 kc, and 6.0 kc. According to Jay Miller's book, there is a "late" 75A3 6.0 kc filter that is F 455 C 60.

73,  
Phil  
Phil Mills, AB5TH  
pmills@cyberhouse.com  
713-992-5762  
Friendswood, TX (just south of Houston)

From boatanchors@theporch.com Wed Aug 21 13:49:08 1996  
From: Steve Ellington <n41q@iglou.com>  
Subject: 75A-4 Service Tips  
Message-ID: <Pine.GS0.3.93.960821104247.12142A-100000@iglou>

Here are some problems I recently cured in the 75A-4

Symptom: Long warm up time, blinking dial lights, audio static in speaker, slight distortion in audio.

Procedure: Measure 6.3 volt filament voltage from chassis to fil line.

Finding: Mine measured 5.4 volts from chassis but 6.3 from common lead of filament secondary indicating resistance between lead and chassis.

Cause: Bolt that holds terminal strip where 6.3v common lead is grounded needed tightening.

Cure: Tightened bolt. Check the rest of them in radio just in case. I believe the aluminum chassis causes this.

Symptom: Erratic S-meter zero, loss of receiver I.F. gain, low S-meter readings, very thumpy AGC.

Procedure: Measure control grid voltage on I.F stage where S-meter voltage is derived.

Finding: Grid voltage only -1v instead of 5 or 6 as normal. There is a silver mica capacitor coupling the control grid of this I.F. back to the Q-mult. Checked for dc voltage on Q-mult side and it measured the same. Disconnected Q-mult side of capacitor and still had dc on that end of capacitor indicating a leaky capacitor.

Cause: Leaky coupling cap.

Cure: Replaced the 470pc coupling cap between Q-mult and I.F.

Conclusion: Silver Micas will leak with only 7 volts applied. Better check rest of these things!

Next problem to cure: Receiving an FM radio station on low end of 15 and 10 meters. The station operates at about 92 mc. Of course, it's very wideband and distorted. Seems to be occurring early in the RF chain. Can receive this on any antenna.

Steve Ellington N4LQ@IGLOU.COM Louisville, Ky

From boatanchors@theporch.com Wed Aug 21 09:35:39 1996  
From: Dave Hockaday <wb4iuy@ipass.net>  
Subject: acorn tubes  
Message-ID: <199608210154.VAA06288@passport.ipass.net>

Someone was asking me about acor tubes and sockets. I just found a few.  
Would you drop me an email, as I lost yours...

Tnx!

73 de Dave Hockaday WB4IUY  
wb4iuy@ipass.net

<http://www.ipass.net/~hockaday/>

From boatanchors@theporch.com Wed Aug 21 13:49:08 1996  
From: jml@innercite.com (Jim Lockwood)  
Subject: America's largest consumer of vacuum tubes  
Message-ID: <m0utFJf-001NiIC@spider.lloyd.com>

Gang,

Here's an interesting bit of absolutely useless trivia I just found on page 48 of the current edition of Forbes:

"The FAA remains the U.S. largest buyer of vacuum tubes (\$19 million worth a year), used by its 30 year old mainframe computers."

I'm skeptical that a 30 year old computer used tubes, so that stretches the credibility of the claim, in my opinion. However, there must be \*something\* factual somewhere behind this.

Now before this veers off course into a discussion of the FAA, let me offer this one suggestion: Don't do it. It isn't appropriate.

Jim - km6nk

From boatanchors@theporch.com Wed Aug 21 13:49:08 1996  
From: Lrware@aol.com  
Subject: Re: America's largest consumer of vacuum tubes  
Message-ID: <960821125054\_462014089@emout16.mail.aol.com>

That the FAA still consumes large numbers of firebottles doesn't surprise me...

Years ago (1979) when I worked under a contract for the FAA, every facility (FSS?) at every airport in the land had dozens of pieces of firebottle gear. This ranged from HP 400D's to Tek 545's to TWT amps... The techs using this equipment supported some of the oddest firebottle gear....

Radar, VORTAC, ILS, etc. etc. etc.

I believe that at smaller airports, (Worland, WYO comes to mind as an example.) a lot of this kind of stuff is still in service...

-Larry Ware  
lrware@aol.com

From boatanchors@theporch.com Wed Aug 21 13:49:08 1996  
From: jproc@worldlinx.com  
Subject: RE: America's largest consumer of vacuum tubes  
Message-ID: <Chameleon.4.01.2.960821130349.jproc@>

>  
>"The FAA remains the U.S. largest buyer of vacuum tubes (\$19 million worth a  
>year), used by its 30 year old mainframe computers."  
>>I'm skeptical that a 30 year old computer used tubes,

Jim,

I think the author of the article may have gotten confused between computers and air traffic control radar which I undersand is somewhat antiquated (as it is in our country). Aboard ship, we have the AN/SPA4. which incorporates 85 tubes. If the FAA has similar type equipment, I could certainly see them consuming \$19 M worth of tubes.

This tidbit spawns new questions. What types of tubes are the FAA buying and who is making them? Are they being supplied by Russia/China excusively?

Regards,

-----  
Jerry Proc VE3FAB  
E-mail: jproc@worldlinx.com  
Radio Restoration Volunteer  
HMCS Haida Naval Museum  
Toronto Ontario  
-----



From boatanchors@theporch.com Wed Aug 21 20:42:32 1996  
From: John Shriver <jas@shiva.com>  
Subject: RE: America's largest consumer of vacuum tubes  
Message-ID: <199608211805.0AA25796@shiva-dev.shiva.com>

I suspect a lot of the FAA's tubes come from Richardson. Some from their inventory of the last runs of GE/MPD tubes. Others probably from buying surplus MIL tubes from the DoD!

Maybe FAA gets some directly from DoD?

Let's remember that the Russians make a rather small selection of tubes!

From boatanchors@theporch.com Wed Aug 21 20:42:32 1996  
From: "William L. Fuqua III" <wlfuqu00@service1.uky.edu>  
Subject: RE: America's largest consumer of vacuum tubes  
Message-ID: <199608211825.0AA06422@service1.cc.uky.edu>

I expect the FAA and the military are the largest consumer (dollar wise) of vacuum tubes. Mostly expensive Magnetron and power Klystrons.

73

Bill wa4lav

William L. Fuqua III P.E. E-mail WLFUQU00@POP.UKY.EDU Phone (606) 257-4155  
Department of Physics and Astronomy CP-177 Chem. Phys. Bldg.  
University of Kentucky , Lexington, Ky 40506-0055

From boatanchors@theporch.com Wed Aug 21 20:42:32 1996  
From: Norm Flasch <flasch@cushy.eecs.nwu.edu>  
Subject: Re: America's largest consumer of vacuum tubes  
Message-ID: <199608211924.0AA21366@cushy.eecs.nwu.edu>

> I believe that at smaller airports, (Worland, WYO comes to mind as an  
> example.) a lot of this kind of stuff is still in service...

>

> -Larry Ware

> lrware@aol.com

>

Smaller??? Try O'Hare Chicago. There was a great deal of media coverage about this here a few months ago. O'Hare uses vintage 30+ year old tube type computers to aid thier air traffic contorllers.

There were several outages over the period of a few months that caused a great deal of concern over air traffic safety here. At that time the news media was showing the old computers and tubes quite frequently.

New computers were scheduled to be installed, but integrating them into the system seemed to be the big problem. As far as I know, the vintage computers are still in service at O'Hare.

--

Norm Flasch                    flasch@ece.nwu.edu                    Northwestern University  
Electrical and Computer Engineering

From boatanchors@theporch.com   Wed Aug 21 20:42:32 1996  
From: Jay Coward <jayc@hpmsd2.sj.hp.com>  
Subject: RE:America's largest consumer of vacuum tubes  
Message-ID: <9608212024.AA18089@hpmsd2.sj.hp.com>

Hello to the Group,

I recently heard on a local (Bay area) news talk show that the Air Traffic Control System is indeed the largest user of tubes. And as someone asked "where are they made, China?" (para phrased) may explain why the system is 'down' so often considering what's coming out of our most favored trading partner.

This is strictly my own opinion and does not reflect that of my employer  
Please no flames!

--

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NOTIFY PILOT BEFORE UNLOCKING AUTOTUNE

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HEWLETT      John Jay Coward                    39201 Cherry Street      MS NK10  
PACKARD      jayc@hpmsd2.sj.hp.com      Newark, California      94560  
Communications Components Division 510-505-5614      Fax 510-505-5560

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From boatanchors@theporch.com   Wed Aug 21 20:42:32 1996  
From: Andy Wallace <wallace@mc.com>  
Subject: RE: America's largest consumer of vacuum tubes  
Message-ID: <9608212017.AA00622@taku>

----- Begin Included Message -----

From: jproc@worldlinx.com

Subject: RE: America's largest consumer of vacuum tubes

This tidbit spawns new questions. What types of tubes are the FAA buying and who is making them? Are they being supplied by Russia/China exclusively?

----- End Included Message -----

I heard they were filled with 1L6 and WD11 tubes.

--Andy

From boatanchors@theporch.com Wed Aug 21 20:42:32 1996  
From: "William L. Fuqua III" <wlfuqu00@service1.uky.edu>  
Subject: Re: America's largest consumer of vacuum tubes  
Message-ID: <199608212057.QAA15195@service1.cc.uky.edu>

How do these things get started. Tube computers were just about all replaced by the early 60's and they would be much more than 30 years old. I don't think they ever had any tube computers with CRT read outs or keyboard inputs. At best some had punch card inputs and most were hard wired programmed on large patch panels about 1 foot square with wire jumpers. You could change the programming by swapping out panels. They were often used in research facilities for complex calculations. However due to the difficulty of getting data in and out I see no way they could have ever been used for air traffic control. I remember in the 60's scrapping some of them for parts. Many plug-in modules with one or two tubes and hand wired components in them. I still have a old drum some where around the house. It held about 40K bytes or so with about a hundred heads on it. In fact the early transistor computers ( much better than the tube ones) had only 4 or 8 Kbytes of ram and large disk drives with maybe 50 or so Kbyte capability. An early PDP-8 we used to have here had a big 32Kbyte hard drive in it.

73

Bill wa4lav

73

Bill wa4lav

William L. Fuqua III P.E. E-mail WLFUQU00@POP.UKY.EDU Phone (606) 257-4155  
Department of Physics and Astronomy CP-177 Chem. Phys. Bldg.  
University of Kentucky , Lexington, Ky 40506-0055

From boatanchors@theporch.com Wed Aug 21 20:42:32 1996  
From: John Shriver <jas@shiva.com>  
Subject: Re: America's largest consumer of vacuum tubes  
Message-ID: <199608212208.SAA24000@shiva-dev.shiva.com>

The IBM 704 was a general purpose computer with tubes.

But, ATC would be down daily if they were using 704's. The MTBF of that machine was on the order of a few days at best, with the very best tubes.

The tubes must be in radar transponder processing systems.

I'd agree that the bulk of the \$\$\$ is RADAR tubes from Richardson, who still makes them. (For airplanes, too.)

From boatanchors@theporch.com Wed Aug 21 20:42:32 1996  
From: tomrice@netcom.com (Tom R. Rice)  
Subject: AR-88: Field Use?  
Message-ID: <199608211846.LAA21567@netcom5.netcom.com>

The previous comments on the AR-88 F model led me to an interesting reference work:

SIG-3 Department of the Army Supply Manual  
List of Current Issue Items, October, 1953

On page 237 is a picture of a tall rack containing three AR-88 receivers, a loudspeaker panel and a couple of panels with meters and knobs which I assume is the diversity combiner. The text description of this gem is "Receiving Set, Radio OA-58/FRC: A1, A2, A3 reception; 535 to 32,000 kc freq range, 6 bands; built-in crystal filter, noise limiter; 110, 125, 150 v or 210, 240 v AC oper power; a triple diversity receiving set, receivers may be operated individually.

Non-expendable Item  
Packed Weight 175 lbs [do you believe this?]  
Packed Volume 9.45 cu. ft.  
Federal Stock No. 194-2983  
Signal Corps Stock No. 2C5137-58A"

I had thought that the AR-88 had been reserved for rear-echelon activities, but was intrigued by the picture on page 165, captioned "Direction finder set AN/CRD-2" which shows a soldier sitting in a tent peering into a CRT display mounted in a table cabinet. Above the display is a panel with meters and stuff, below the display is an AR-88! In the background are four masts, set in a square pattern.

"AN/CRD-2, A: Air-transportable gnd station; radio direction finder, visual or aural indication, receives all type of radio transmission; 0.54 mc to 30 mc freq range; 115 or 230 v AC, 50 to 60 cps oper power.

Non-expendable Item  
Packed Weight 5,599 lbs.  
Packed Volume 327 cu. ft.  
Federal Stock No. 194-7072  
Signal Corps Stock No. 2S1515-2"

If anyone has more details on this and other field uses of the AR-88, I'd be interesated in knowing more. I thought all these receivers were in places like Bletchley Park.

tnx de WB6BYH

--

"Start off every day with a smile and get it over with." --W.C.Fields  
Tom R. Rice  
tomrice@netcom.com  
CIS: 71160,1122

From boatanchors@theporch.com Wed Aug 21 20:42:32 1996  
From: dvorkin@pcs.mot.com (Vlad Dvorkin)  
Subject: Re: AR-88: Field Use?  
Message-ID: <199608211913.PAA03303@orion10.pcs.mot.com>

Hello BAs,

The AR-88 receiver was widely used by Soviet Army during the WWII and shortly after including field use in army vehicles.

Lots of russian hams are still using AR-88.  
I had one as well back in early 60th.

Regards,  
Vladimir Dvorkin  
ex. UA3ACR

From boatanchors@theporch.com Wed Aug 21 09:35:39 1996  
From: W7FG <w7fg@eigen.net>  
Subject: ATTN: Help needed in Daytona, FL.  
Message-ID: <199608210453.XAA15088@newton.eigen.net>

This forum is not the place for the following, but I don't have another avenue. If it is offensive to some, I apologize now.

We received a call yesterday from a Visually Impaired ham in Daytona, Florida that needs technical help on a HQ-145, he says HQ-145X but I think he ment HQ-145A. If there is someone in the Daytona area that could help him, I'm sure the help would be appreciated. The following text from Gene - K5NYT explains the circumstances, background with name and phone number of the individual who needs assistance.

If there is no one in Daytona that can help, but you know someone in the area please pass the info along.

Here is the information on the visually impaired ham in Daytona, FL. He called on the 800 line yesterday afternoon and started questioning me about what might be wrong with his HQ-145X. I suggested to him that he needs to find someone locally to help him because I could not do much for him on the phone, and it sounded as if he needed some good old hands-on repair on his receiver. He said he did not know any hams there and did not want to ship his receiver off somewhere, and eventually he disclosed that he is visually impaired and lives alone. He said he can read some things with a big magnifying glass, so he is not completely blind. Anyway, I think he does need someone to help him, and he evidently does not have contact with any hams or radio clubs in his vicinity. I took his name and phone number and told him that if we run across anyone in Daytona that could help him we would let him know, or have them contact him. He is 40 years of age and has a German name and that is all I know of him. His name is Bill Krautheim, his ham call is KB4FRX, and his phone number is 904-238-3959.

We will supply necessary technical documentation if not available at no cost.

W7FG Vintage Manuals  
3300 Wayside Drive  
Bartlesville, Oklahoma 74006

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HomePage: <http://eigen.net/w7fg>

From boatanchors@theporch.com Wed Aug 21 13:49:08 1996  
From: "Barry L. Ornitz" <u856010@eastman.com>  
Subject: Re: BOATANCHORS digest 844  
Message-ID: <Pine.ULT.3.91.960821104327.10943A-100000@dua150.kpt.emn.com>

On Wed, 21 Aug 1996, Richard, WB6ZWC, asked what is a "cold Cathode". Pete, WB2QLL, gave two examples of gas discharge tubes, the gaseous voltage regulator and the neon lamp. Normally the term "cold cathode" is applied to gas-filled rectifiers that do not require external cathode heating. Examples are rectifiers designed for automobile radios like the 0Z4. The name is a little bit of a misnomer since the actual cathode in these tubes is designed to conserve the heat generated during current flow. Hence they do have a relatively small but measurable warm-up time for proper operation. Most gas-filled thyratrons and ignitrons are also considered cold cathode tubes. A neon lamp would not typically be called a cold cathode tube (even though neither element is heated), because it will conduct equally well in both directions. In true cold cathode devices, the tube geometry is such that current flow is essentially from the anode to the cathode only, and that leakage current during reverse bias is minimal.

73, Barry L. Ornitz WA4VZQ [ornitz@eastman.com](mailto:ornitz@eastman.com)

From boatanchors@theporch.com Wed Aug 21 13:49:08 1996  
From: [merrigan@ee.ualberta.ca](mailto:merrigan@ee.ualberta.ca)  
Subject: Books to trade  
Message-ID: <199608211522.KAA19199@uro.theporch.com>

I have the following books/manuals to trade:

Janes Military Communications 1981 (large format, lots of BA gear, excellent condition) WRTH 1983-1989 inclusive  
R1051-B Manual (Copy, with 11 x17's and supplements, 200 double sided pages)

What I would like:

R390A manual: TM 11-5820-358-35 Original manual, not a copy R390A

manual: TM 11-5820-358-10 Original manual, not a copy HQ-145 manual ,  
original  
HQ-180 manual, original  
SP-600 Maintenance and Repair manual, original

Shaun

--

-----  
merrigan@nyquist.ee.ualberta.ca  
Electrical Engineering Student  
University of Alberta  
Edmonton, Alberta, Canada  
-----

From boatanchors@theporch.com Wed Aug 21 09:35:39 1996  
From: "Barry L. Ornitz" <u856010@eastman.com>  
Subject: Broken Ceramic Insulators  
Message-ID: <Pine.ULT.3.91.960820205258.10531A-100000@dua150.kpt.emn.com>

On Tue, 20 Aug 1996, it was written:

> > Problem is, the ceramic strip of one of them has been cracked  
> > Ideas, guys?  
>  
> Anyone here have or know someone with a kiln?  
> Make a mold and fire a new part.  
> Keep the mold for the next time someone needs one.  
>  
> Or is there something special about the material used?

I don't have a kiln but I have a muffle furnace that will be a good  
alternative. Unfortunately it currently needs new Kanthal elements.



A big problem is that ceramics shrink with firing, so you cannot simply make a mold from an impression of the old part. If you know the exact shrinkage and can control your firing very closely, you can make the proper oversized mold.

Conventional slip-cast clays that are used for hobby-type ceramics produce rather fragile parts. The Steatite clays and others used in electrical applications require firing at higher temperatures.

Having said this, I can say that I have made custom coil-forms in the past. As long as the winding force is not too bad, they work OK.

If you have the old cracked ceramic part and the pieces fit very well, cyanoacrylate glues are probably best for repairs. If the edges do not fit perfectly, however, an epoxy glue will be better. Use the 24-hour kind as the 1-hour stuff cures to a rather brittle, low strength material.

Don't expect the epoxy or cyanoacrylate to work in applications where there are high voltages (DC and especially RF) across them. For repairing many high voltage air variable capacitors, I have used pieces of polymethylmethacrylate (PMMA, DuPont's Lucite, Rohm & Haas' Plexiglass).

For those into high-tech materials, there are now available machinable glasses and ceramics. These can be drilled and turned on a lathe - with care! I have no idea as to their cost, however.

73, Barry WA4VZQ ornitz@eastman.com

From boatanchors@theporch.com Wed Aug 21 09:35:39 1996  
From: wb6zwc@ns.net  
Subject: Capacitive Load  
Message-ID: <199608210017.RAA08971@tomcat.ns.net>

There was this box--it has 22 door knobs and a "large" ceramic rotary switch---that is why I bought it!

Now what was it used for?

It is military! 3 position switch for NORMAL (rf in and out with 40 puffs to ground)

SERIES (rf in and out with 100 puffs in the line)

SHUNT

has 5 frequency selections 30 mhz, 20 mhz, 12 mhz, 6 mhz and 2 mhz. Each frequency has two settings allowing a 2:1 SWR or a 3:1 SWR. It does this

by several combinations of puffs (series/parallel) to ground.

Here is a guess: if the unit was terminated in a resistive load then there would be a controlled reactive reflection available possibly for calibration purposes.

Anybody ever use one of these? Maybe I should keep it in one piece.

=====

Wanted 312-B3

Richard@Sacramento,Ca.

From boatanchors@theporch.com Wed Aug 21 20:42:32 1996

From: "Barry L. Ornitz" <u856010@eastman.com>

Subject: Re: Cathode-Driven/Grounded-Grid Amplifiers

Message-ID: <Pine.ULT.3.91.960821203106.14614D-100000@dua150.kpt.emn.com>

Sam McIntosh asked me about 4-250's and 4-400's in "grounded-grid" service. As part of my reply to him, I found the following information in some old Eimac literature I had at home. I thought others on the list might be interested too (and why type it again later?). Of course, everyone should check this for typos! The use of power tetrodes in cathode driven service is not uncommon but data sheets rarely include this mode in their information.

-----  
>From Eimac Amateur Service Newsletter AS-4 by William I. Orr, W6SAI:

OPERATING CHARACTERISTICS, EIMAC TETRODES, CATHODE DRIVEN CONFIGURATION  
(Grid and Screen connected together with zero bias and grounded for RF)

Values are for a single tube operating in Class-B linear operation.

#### 4-125A

DC Plate Voltage	2000	2500	3000	volts
Zero-Signal Plate Current	10	15	20	milliamps
Single-Tone Plate Current	105	110	115	milliamps
Single-Tone Screen Current	30	30	30	milliamps
Single-Tone Grid Current	55	55	55	milliamps
Single-Tone Driving Power	16	16	16	watts
Driving Impedance	340	340	340	ohms
Load Impedance		10500	13500	15700
		ohms		
Plate Input Power	210	275	345	watts
Plate Output Power	145	190	240	watts

-----

#### 4-400A

(Ratings also apply to 4-250A, within the plate dissipation rating of 4-250A)

DC Plate Voltage	2000	2500	3000	volts
Zero-Signal Plate Current	70	80	90	milliamps
Single-Tone Plate Current	265	270	330	milliamps
Single-Tone Screen Current	55	55	55	milliamps
Single-Tone Grid Current	100	100	100	milliamps
Single-Tone Driving Power	38	39	40	watts
Driving Impedance	160	150	140	ohms
Load Impedance	3950	4500	5000	ohms
Plate Input Power	530	675	990	watts
Plate Output Power	325	435	600	watts

#### 4-1000A

DC Plate Voltage	3000	4000	5000	volts
Zero-Signal Plate Current	100	120	150	milliamps
Single-Tone Plate Current	700	675	540	milliamps
Single-Tone Screen Current	105	80	55	milliamps
Single-Tone Grid Current	170	150	115	milliamps
Single-Tone Driving Power	130	105	70	watts
Driving Impedance	104	106	110	ohms
Load Impedance	2450	3450	5550	ohms
Plate Input Power	2100	2700	2700	watts
Plate Output Power	1475	1870	1900	watts

Notice how the grid current is greater than the screen current. This is why you should be extra careful with tubes with fragile grids. The 4-125A through 4-1000A grids can take the abuse but the 4-65A is entirely different.

73, Barry L. Ornitz WA4VZQ ornitz@eastman.com

From boatanchors@theporch.com Wed Aug 21 09:35:39 1996

From: wb6zwc@ns.net

Subject: Cold Cathode

Message-ID: <199608210017.RAA08975@tomcat.ns.net>

What is a Cold Cathode?

=====

Wanted 312-B3

Richard@Sacramento,Ca.

From boatanchors@theporch.com Wed Aug 21 09:35:39 1996  
From: Peter Ferrand <petef@sprynet.com>  
Subject: Re: Cold Cathode  
Message-ID: <2.2.32.19960821003437.0076f3cc@m3.sprynet.com>

At 07:18 PM 8/20/96 -0500, you wrote:  
>What is a Cold Cathode?  
>=====

Usually used to describe a part of a tube that doesn't have a filament to heat the cathode. A typical example would be a voltage regulator tube, such as an 0A2. Or a neon bulb.

-Pete  
WB2QLL  
petef@sprynet.com

From boatanchors@theporch.com Wed Aug 21 20:42:32 1996  
From: wb6zwc@ns.net  
Subject: Cold Cathode  
Message-ID: <199608211932.MAA03801@tomcat.ns.net>

-----  
The "cold cathode" question came from a 6802 tube that has a most unusual construction. The 6802 was rescued from a decade counter. Decade counters seem to be an appropriate application for the cold cathode principle.  
-----

Barry, WA4VZQ wrote:

>  
>Pete, WB2QLL, gave two examples of gas discharge tubes, the gaseous  
>voltage regulator and the neon lamp.  
>  
The name is a little bit of a misnomer since the actual cathode in  
>these tubes is designed to conserve the heat generated during current  
>flow. Most gas-filled thyratrons and ignitrons are also  
>considered cold cathode tubes. A neon lamp would not typically be called  
>a cold cathode tube (even though neither element is heated), because it  
>will conduct equally well in both directions.

In true cold cathode devices, the tube geometry is such that current flow is essentially from the anode to the cathode only, and that leakage current during reverse bias is minimal.

Rhett, KE4HIH wrote:

A cold cathode is one which is not incandescent due to action of a heater within. In fact, I doubt that it is ever incandescent in operation. Devices using cold cathodes are almost always filled a little bit with gas, likely one of the group including argon and krypton. A thin wire electrode from the anode up near the cathode causes a high electric field around it which forces ionization of the gas. Ions are accelerated toward the cathode, electrons toward the anode. On the way, each collide with other gas atoms and ionize them. Conduction has begun.

Sandy, W5TVW wrote:

Just that, it's "cold"! There is no heater in the tube. Certain rectifiers were used that were gas filled and had cold cathodes. The 0Z4 was very common back in the tubes days of auto radios. Also the "BH" rectifier was popular in the late 20's and early 30's. "Back bombardment by ions 'heated' the cathode.

John Chasteen, wrote:

I think a cold cathode is one that doesn't have filaments, It is a gas tube  
The ones I can remember were voltage regulator tubes.

=====

Wanted 312-B3

Richard@Sacramento,Ca.

From boatanchors@theporch.com Wed Aug 21 09:35:39 1996

From: Lynn Stolz <lstolz@tekelec.com>

Subject: Re: Couple of needs

Message-ID: <321B03EA.4487EB71@tekelec.com>

To everybody:

The resonse to my request was overwhelming. I have leads on both the BC-221 manual and the 6AS7 tubes.

Not to continue to repeat the obvious, but you are all a great bunch of guys (and gals, Bobbi). Just another example of what people with a common interest achieve.

73,

Lynn, N8AJ

From boatanchors@theporch.com Wed Aug 21 20:42:32 1996  
From: Mike Maloney <ac5p@ionet.net>  
Subject: Custom Xtal Filters  
Message-ID: <199608212324.SAA12328@mail.ionet.net>

Hello BA fans,

Would like to correspond with anyone having experience making bandpass filters from 2 or more surplus quartz crystals or who can give reference.  
Thanks, Mike/AC5P

From boatanchors@theporch.com Wed Aug 21 13:49:08 1996  
From: knudsen@gvmail.ih.lucent.com  
Subject: re: EAC R390As == Hammarlund  
Message-ID: <9608211623.AA02812@bock.ih.lucent.com>

Not surprised to hear that EAC's radios were well built.  
According to Moore's book and some discussions here last year, EAC was a subsidiary or sister organization to Hammarlund -- well, maybe formed from former Hammer managers and employees, and/or using Hammer's factory facilities, or something like that.

Anyway, you ca say you have a "Hammarlund R390A" with a straight face.

BTW, I still ahve no idea who built my mainframe, since the cover plate was removed (and most any brand could be screwed back on).  
Modules include Moto, Stew-Warner, and Progresstron, but no EAC.  
73, mike k aa9rg

From boatanchors@theporch.com Wed Aug 21 13:49:08 1996  
From: "Grant Youngman" <nq5t@gte.net>  
Subject: re: EAC R390As == Hammarlund  
Message-ID: <199608211716.MAA26344@mail.gte.net>

> Anyway, you ca say you have a "Hammarlund R390A" with a straight face.  
>

Indeed you can. I have a cut sheet for a "Hammarlund R390A". They marketed the units under their name as well as E.A.C.

Grant/NQ5T

-----  
Grant Youngman / NQ5T  
nq5t@gte.net  
HTTP://home1.gte.net/nq5t/index.htm

Beautiful downtown Double Oak, TX  
(near Dallas)  
-----

From boatanchors@theporch.com Wed Aug 21 13:49:08 1996  
From: "Robert Fowle (KC8DBC)" <hammarlund@jacksonmi.com>  
Subject: re: EAC R390As == Hammarlund  
Message-ID: <19960821173236642.AAA213@LOCALNAME>

>EAC was a subsidiary or sister organization to Hammarlund --  
>well, maybe formed from former Hammer managers and employees,  
>and/or using Hammer's factory facilities, or something like that.  
>

EAC...owned Hammarlund in this time frame..(also Gonset, Dumont, Fairchild ect)  
EAC sold Hammarlund in 1975 including buildings, equipment parts contracts,  
the whole thing for  
\$650,000.00

Oh if only i'd have known.....(corse having the money then, would have  
been a different story...HI HI)

=====]-[->

Robert Fowle KC8DBC  
The HAMMARLUND Historian  
Ph. 517-789-6721  
1215 Winifred  
Jackson, Mich. 49202-1946  
E-mail: hammarlund@jacksonmi.com  
Web Page: <http://www.jacksonmi.com/hammarlund>  
HAMMARLUND LITERATURE WANTED  
WANTED: MANUALS FOR ANY MAKE RADIO EQUIPMENT

=====]-[->

From boatanchors@theporch.com Wed Aug 21 09:35:39 1996  
From: Peter Ferrand <petef@sprynet.com>  
Subject: Final amplifier problem, part two..  
Message-ID: <2.2.32.19960820214034.006b5b14@m3.sprynet.com>

Well, thanks everyone for offering help on the Globe Champ 350 project to

convert the final amplifier to a 4CX250B.

I put in another five or six hours on this project today, and have implemented all the suggestions as best as I can, and we're still putting out 125 watts instead of 200.

The results were:

Yes, the heater on a 4CX250B is supposed to run on 6.0 vac.

Someone suggested 2 kv anode voltage instead of the 950 the rig runs, but that's not what the Eimac data sheet suggests. Eimac says with 1000 volts in you're supposed to get 290 watts out. And the final amp components are marginal at 1 kv as is. As I think I noted initially, all tube voltages and currents are within 5% of the data sheet.

On the swr bridge issue, by fiddling with the load control it is possible to do "something" to the rig such that there's 200 watts out into the dummy load, but into a resonant antenna this mode produces a very high swr indicates it's probably producing harmonics or spurs. This an odd setting and does not occur with normal tune up procedures.

Tried feeling the output coarse load caps for heat, wasn't any, replaced them anyway, no change EXCEPT I discovered someone had put the .0004 cap where the .0002 cap was supposed to be. ?

Nothing in the output stage runs particularly hot except that the output of the forced air blows across the output tank, heating that and the plate choke a bit.

Tune up is uneventful and the load and tune caps peak up in the middle of their range and the dials point to the place where they should according to the book.

Tried changing the number of turns of wire on the output tank, managed to reduce output power if I reduced the number of turns. I can add up to two extra turns without reducing output power (on 40), but can't increase it beyond 125.

One interesting suggestion was that the final plate output coupling capacitor was of two small a value, which the author suggested was a common problem in old rigs. I hadn't thought of this before, and it seems like a good thing to check. I tried adding more capacitance, and found no change in the rig's operation.

Guess that's about it. Still haven't found the answer.



I'm open for other ideas.

73 es tnx

-Pete

WB2QLL

petef@sprynet.com

From boatanchors@theporch.com Wed Aug 21 09:35:39 1996

From: w5tvw@juno.com (Sandy Blaize)

Subject: Re: Final amplifier problem, part two..

Message-ID: <19960820.180422.7895.9.W5TVW@juno.com>

I've worked on a lot of ships in the past using the 4CX250B in the power amp. Usually 4 tubes in parallel. In almost all circumstances they had around 2 kv. on the anodes. In every circumstance the screens were at +350 volts REGULATED. The ceramic tubes have tender screen grids compared with the old line like the 4-250, 4-400. In most of these rigs the idling anode current for all 4 tubes was about 450-550 ma. Peak current runs about 1.0-1.2 amps for all 4 tubes. This was in "linear" service of course where no grid current was drawn when full drive was applied. They delivered about 1-1.2 KW sometimes 1.4 kw. These tubes WILL work at lower anode voltages, but they are just not at peak efficiency. I personally had a 2 meter amplifier (Class AB1) that used a pair in push-pull with 1500 volts on them. They delivered about 300-350 watts. Don't remember what the plate current was at the moment. The screen voltage was regulated by a string of 50 watt zener diodes.

I must have missed the original post. What are you doing with the screen grids? How much plate current are you trying to draw? I'm assuming 250 ma. Is the meter reading screen current as well? (i.e.: the screen is derived from the plate voltage thru a series resistor coming off the plate supply.)

I have never used the Amperex tube WRL decided on. I think if I were to replace it with something else, I'd probably have picked the 7094. It requires little or no forced air cooling and is designed for 1000-1200 volts on the plates. It's capable of lots of current at that voltage (250-350 ma or so,) Only problem is they are getting scarce and expensive.

Just some ideas. Comments welcomed.

73,

Sandy Blaize, W5TVW

Boat Anchors collected, restored, modified, traded & used!

w5tvw@juno.com  
417 Ridgewood Drive,  
Metairie, LA., 70001.

From boatanchors@theporch.com Wed Aug 21 13:49:08 1996  
From: "Barry L. Ornitz" <u856010@eastman.com>  
Subject: Re: Final amplifier problem, part two..  
Message-ID: <Pine.ULT.3.91.960821110303.10943B-100000@dua150.kpt.emn.com>

On Wed, 21 Aug 1996, Peter Ferrand, WB2QLL, informed us on the continuing saga of his conversion of the Globe Champ 350 to use a 4CX250B final amplifier tube.

> I put in another five or six hours on this project today, and have  
> implemented all the suggestions as best as I can, and we're still putting  
> out 125 watts instead of 200.

> Someone suggested 2 kv anode voltage instead of the 950 the rig runs, but  
> that's not what the Eimac data sheet suggests. Eimac says with 1000 volts in  
> you're supposed to get 290 watts out. And the final amp components are  
> marginal at 1 kv as is. As I think I noted initially, all tube voltages and  
> currents are within 5% of the data sheet.

Unless my Eimac data sheet on the 7203/4CX250B, 7204/4CX250F is completely wrong, the 290 watt number is erroneous. My data sheet gives the following typical operation for Class-C, key-down conditions on frequencies below 175 MHz and at 500 MHz in a cavity amplifier circuit.

Frequency		Below 175 MHz.....				
	500	1000	1500	2000	2000	
	MHz					
DC Plate Voltage	500	1000	1500	2000	2000	volts
DC Screen Voltage	250	250	250	250	300	volts
DC Grid Voltage		-90	-90	-90	-90	-90 volts
DC Plate Current	250	250	250	250	250	mils
DC Screen Current (*)		45	38	21	19	10 mils
DC Grid Current (*)		35	31	28	26	25 mils
Peak RF Grid Voltage (*)		114	114	112	112	--- volts
Driving Power (*)	4.0	3.5	3.2	2.9	---	watts
Plate Power Input	125	250	375	500	500	watts
Plate Power Output	70	190	280	390	225	watts
Heater Voltage		6.0	6.0	6.0	6.0	5.5 volts

(\*) Approximate value, depends on the individual tube.

This also assumes that a proper Eimac air-system socket is used. This means that ALL four cathode pins are grounded with short leads and that the screen is properly bypassed. This typically means using their special

socket (or Johnson's) with the internal screen bypass. Screen connection is to the screen ring - not the base pin. Any old locktal socket will NOT do!

> On the swr bridge issue, by fiddling with the load control it is possible to  
> do "something" to the rig such that there's 200 watts out into the dummy  
> load, but into a resonant antenna this mode produces a very high swr  
> indicates it's probably producing harmonics or spurs. This an odd setting  
> and does not occur with normal tune up procedures.

I am guessing at what is happening here... The rig is probably creating harmonics or the final is going into spurious oscillation. The wattmeter into a dummy load only looks at total forward power and does not care about whether it is on-frequency or not. The antenna does! This is one good reason for NOT using multiband antennas.

I suggest Pete look at the above conditions and compare them to what he measures with the rig. 125 watts out sounds somewhat low; I would expect something like 150 to 180 to be more realistic. I hope Pete continues to keep informing the group of his progress. We all learn more that way!

From boatanchors@theporch.com Wed Aug 21 20:42:32 1996  
From: "Barry L. Ornitz" <u856010@eastman.com>  
Subject: Frederick Alston Terman and his legacy  
Message-ID: <Pine.ULT.3.91.960821201709.14614B-1000000@dua150.kpt.emn.com>

I ran across an interesting article today by accident while searching the Web. I highly recommend our Boatanchor folks check out this article. Not only do Hewlett and Packard owe their start to Terman, but the entire electronics industry does too. Of interesting note to me personally was that Terman started out with a degree in chemical engineering.

#### History Of The Silicon Valley

FRED TERMAN, THE FATHER OF SILICON VALLEY CAROLYN E. TAJNAI,  
MANAGER STANFORD COMPUTER FORUM STANFORD UNIVERSITY STANFORD,  
CALIFORNIA, 94305 USA MAY, 1985.

<http://www-forum.stanford.edu/history/History.html> - size  
32K - 21 Mar 95

73, Barry L. Ornitz WA4VZQ ornitz@eastman.com

From boatanchors@theporch.com Wed Aug 21 09:35:39 1996  
From: va3rp@mgl.ca (Rod Pears)  
Subject: FS National NC-190..  
Message-ID: <199608211355.JAA22209@lightning.mgl.ca>

Hello there bottleburners.. I recently aquired a RCA AR88LF receiver, the space here is getting very limited, so I must sell the NC-190 receiver to make space.. It works very well, no extra holes that I know of, comes with repro manual.. Would like to get \$100 or best offer for it, hate to let it go but space has become a premium here after the last few pieces or radio gear arrived..

\*\*\*\*\*  
\* Rod Pears        VA3RP        6062 8th Line        \*  
\*                               Hillsburgh, Ont.    N0B1Z0               \*  
\*    AMI #   709    RAC    ARRL    AWA    OTC               \*  
\*    Looking for R.F. Gain Knob for SX-28A               \*  
\*\*\*\*\*

From boatanchors@theporch.com   Wed Aug 21 13:49:08 1996  
From: "Shepard, Phil/NTSEUG" <pwshepar@sp-eug.com>  
Subject: RE: FS National NC-190..  
Message-ID: <321B2AF6@msmail.sp-eug.com>

Rod,

You wrote:

Hello there bottleburners.. I recently aquired a RCA AR88LF receiver, the space here is getting very limited, so I must sell the NC-190 receiver to make space.. It works very well, no extra holes that I know of, comes with repro manual.. Would like to get \$100 or best offer for it, hate to let it go but space has become a premium here after the last few pieces or radio gear arrived..

I'm interested. Is it good cosmetically? Is that \$100 US?

Thanks es 73,

Phil Shepard, NS7P  
pwshepar@sp-eug.com  
541-683-5701x3320 work  
541-935-3124 home

From boatanchors@theporch.com   Wed Aug 21 20:42:32 1996  
From: Tom Lemar <lema@ols.net>  
Subject: FS-AM Filter  
Message-ID: <321BAE92.4BB2@ols.net>

Yaesu XF-31B AM Filter -- \$20.00 plus shipping.

Tom K4JYH  
lema@ols.net

From boatanchors@theporch.com Wed Aug 21 13:49:08 1996  
From: "Joseph W. Pinner" <kc5ijd@dns1.net-connect.net>  
Subject: FS: Wireless 19  
Message-ID: <199608211535.KAA00175@dns1.net-connect.net>

The Louisiana Military Museum has a Wireless 19 set which they wish to dispose of.

It is in excellent physical condition and includes quite a few accessories - power supply, cables, remote boxes, four boxed headset/mikes, etc.

Send me your offers and I will forward them to Glen.

Please don't call Glen - he will get back to you after receiving your offer.

73

Joseph W Pinner  
Lafayette, LA  
KC5IJD  
EMail: kc5ijd@net-connect.net or kc5ijd@aol.com

From boatanchors@theporch.com Wed Aug 21 13:49:08 1996  
From: "Joseph W. Pinner" <kc5ijd@dns1.net-connect.net>  
Subject: FS: Wireless 48  
Message-ID: <199608211535.KAA00177@dns1.net-connect.net>

The Louisiana Military Museum has a British Wireless 48 set which they wish to dispose of.

It is in really excellent physical condition and includes a copy of the manual, but no accessories (antenna, headset, or mike).

Send offers to me and I will take them to Glen.

Please don't call Glen - he will get back to you after receiving you offer.

73

Joseph W Pinner  
Lafayette, LA  
KC5IJD  
EMail: kc5ijd@net-connect.net or kc5ijd@aol.com

From boatanchors@theporch.com Wed Aug 21 20:42:32 1996  
From: frank\_adams@onf.com (Frank Adams)  
Subject: Re: FWD;Copy of: Re: WW2 Bendix Aircraft Receiver  
Message-ID: <2561462237.115186450@onf.com>

Tom, Tom!

I was jabbing your ribs a bit. <snip> I hope we aren't all TOO serious here.. certainly not me! :-)

(remainder of detailed reply to Thomas snipped to preserve bandwidth and list rules/spirit.)

Frank  
--- OffRoad 1.0 unregistered

From boatanchors@theporch.com Wed Aug 21 09:35:39 1996  
From: wj5j@juno.com (John D Hensley)  
Subject: FWIW: Recommendation on EAC receivers  
Message-ID: <19960821.000740.4783.9.wj5j@juno.com>

If anyone else is using EAC R390 or R390A's, this is a note to pass along an interesting comment I received recently. Several weeks ago while in Dallas, I was fortunate to have lunch with Bob Kuhn, a retired Collins engineer. Bob worked under Art Collins and was attached to various duties in both the Colorado and the Texas branches. He spent about 30 years with them, at first designing and carrying out turn key contracts, and then later supervising teams of engineers before he moved on to a second career in high tech.

When I mentioned that I had an EAC (Equipment Acceptance Corp.) R390A but wished I had a name

brand like Motorola or whatever, he immediately said  
"Why? EAC always exceeded expectations and  
generally were more reliable than what you are  
calling namebrands. That's why they got the contracts  
for making more than anyone else !"

It was probably a dumb comment on my part, but  
learning of his first hand recognition for EAC quality  
makes me feel better about my acquisition. So take  
heart fellow EAC owners, according to a Collins insider,  
you have a good rig.

73, Doug

\*\*\*\*\* WJ5J / NNN0BXX \*\*\*\*\*  
WTB: National AN/WRR-2A ; HAL: HT32B/HT20/R274x (SX-73)  
WTF: Nat'l rack spkr, xcal & nbfm modules, KS1 p.s. for KL-1  
Needed: R388A/51J4 for parts, 800hz 75A3 filter, WW2 books  
\*\*\*\*\* wj5j @ juno.com \*\*\*\*\*

From boatanchors@theporch.com Wed Aug 21 13:49:08 1996  
From: "Robert Fowle (KC8DBC)" <hammarlund@jacksonmi.com>  
Subject: Re: FWIW: Recommendation on EAC receivers  
Message-ID: <19960821150625820.AAA265@LOCALNAME>

>"Why? EAC always exceeded expectations and  
>generally were more reliable than what you are  
>calling namebrands. That's why they got the contracts  
>for making more than anyone else !"  
>  
>It was probably a dumb comment on my part, but  
>learning of his first hand recognition for EAC quality  
>makes me feel better about my acquisition. So take  
>heart fellow EAC owners, according to a Collins insider,  
>you have a GOOD rig.....

You have a \* Hammarlund \* 8-)

"And now.....You know, the 'Best' of the story".....

sorry, I couldn't resist.....

=====]-[->  
Robert Fowle KC8DBC

The HAMMARLUND Historian  
Ph. 517-789-6721  
1215 Winifred  
Jackson, Mich. 49202-1946  
E-mail: hammarlund@jacksonmi.com  
Web Page: <http://www.jacksonmi.com/hammarlund>  
HAMMARLUND LITERATURE WANTED  
WANTED: MANUALS FOR ANY MAKE RADIO EQUIPMENT  
=====]-[->

From boatanchors@theporch.com Wed Aug 21 13:49:08 1996  
From: Paul Bernhardt <bern@ppdu.nrl.navy.mil>  
Subject: How Much for a Kenwood TS-520SE?  
Message-ID: <Pine.A32.3.91.960821135501.42494A-100000@ppdu.nrl.navy.mil>

To BA Experts,

A friend at work has a Kenwood TS-520SE that he wants to sell. What would be a fair price for me to buy it. He has a complete set of manuals and an extra pair of 6246B tubes.  
Thanks, Paul Bernhardt, KF4FOR

From boatanchors@theporch.com Wed Aug 21 20:42:32 1996  
From: "Barry L. Ornitz" <u856010@eastman.com>  
Subject: Inrush Current Limiters, Thermistors  
Message-ID: <Pine.ULT.3.91.960821161813.14140A-100000@dua150.kpt.emn.com>

On Wed, 21 Aug 1996, Dave Ragsdale, KF6BOM, discussed thermistors and inrush current limiters:

> Hello all, I lifted this from the tube audio newsgroup. Does this seem like  
> sound reasoning to the engineering types out there and would this be a  
> reasonable practice when restoring BA's?

Inrush current limiters, as they are more commonly known today, are an excellent choice for an addition to a Boatanchor. In fact, the ratio of cold to hot resistance can be quite high in today's modern devices. These are conventional negative temperature coefficient (NTC) thermistors in operation but their construction uses more modern materials than the old pressed metal oxides. As Dave noted, they are readily available from Digi-Key and others. Some can have quite low values of hot resistance. The new devices were developed for line-powered switching power supplies where a capacitive voltage doubler for 120 VAC (or bridge for 240 VAC) is used. The inrush current limiter allows the large capacitors to charge at a slow enough rate that they do not blow fuses. Since the cold resistance of a vacuum tube filament is low, an inrush current limiter is perfect to



protect the tubes during initial turn-on.

Also available are positive temperature coefficient (PTC) thermistors. These devices are low resistance when operated at their normal current limit, but when they are heated by excessive current flow, their resistance increases. This, in turn, causes more rapid heating and the device quickly goes to a high resistance state. The action is like a fuse - try to push too much current through them and they switch off. Unlike a fuse, you can turn the equipment off, allow the PTC device to cool, and the device will switch on again. The action is like an automatic reset thermal circuit breaker. These devices are also readily available from companies like Digi-Key.

Both types of devices have their place in Boatanchor "protection schemes". It is important that with both types of devices, proper physical placement in the equipment is important. Both types will generate heat and their operation is somewhat dependent on how this heat is dissipated.

It should be noted that both NTC and PTC devices are still series resistances in the circuit and their presence can reduce voltage regulation. While this is of very minimal effect to typical boatanchor applications, it can be disaster to a golden-eared audiophile. :-)

73, Barry L. Ornitz WA4VZQ ornitz@eastman.com

From boatanchors@theporch.com Wed Aug 21 09:35:39 1996  
From: "Thomas A. Adams" <103360.2133@CompuServe.COM>  
Subject: Manual all gone to good homes.  
Message-ID: <960821000943\_103360.2133\_JHL135-1@CompuServe.COM>

Troops,

The batch of manuals I offered have all been spoken for.

Recipients are as follows.

RC-148-C (BC-412) IFF set =	William Donzelli
TT-4 teletypewriter	= Phil Mills
BC- 603 / 604 FM rig	= Joseph Pinner

Hope to have another list very soon.

In the meantime, keep those RA-1B anecdotes coming! Could still use a schematic / manual.

73's,

Mr. T. , K9TA

From boatanchors@theporch.com Wed Aug 21 20:42:32 1996  
From: john <johnmb@mindspring.com>  
Subject: Master mobile remote loading coil info?  
Message-ID: <2.2.16.19960821201054.297f20bc@pop.ral.mindspring.com>

Folks, I've carried a NOS master mobile adjustable mobile loading coil around for years. I found the control head for it at the Winston Salem hamfest last year, and may actually put it to use soon.

Does anyone remember about what the intended power levels this thing was rated for?

To refresh memories, this is a small minibox mounted roller inductor connected to a small DC motor used to adjust the inductance from the drivers seat of a car. The control head had motor control as well as a relative power meter.

Thanks in advance!  
/John

```
+-----+  
|John Brewer johnmb@mindspring.com      |  
|WB50AU/4                               AMI #24      |  
|Vintage Gear web page: http://www.mindspring.com/~johnmb/ |  
+-----+
```

From boatanchors@theporch.com Wed Aug 21 13:49:08 1996  
From: "Edward J. Zeranski" <ejz@nosc.mil>  
Subject: Mid West BA Nest  
Message-ID: <2.2.32.19960821144504.0071b9b0@marlin.nosc.mil>

Hey Ski! You like that old tube stuff? Well we went to this place....  
Thats what greeted me at work this morning. Two co-workers just got back  
from working in Omaha with the following BA source.

Ladd Electronics

111 N41st ST  
Omaha Nebraska  
402-556-3023

Gary and Wayne said the fellow had parts xtals etc and EQUIPMENT. He is planning to go out of biz because of competition from mail order places. If you are in the area it might be a good place to check out. Good hunting! Let us know what you find.

Ed Zeranski    ejz@marlin.nosc.mil, work  
                  ezeran@cris.com            home  
Wooden Boats, Tube Receivers, Rusty Old Trucks, The Good Stuff!

This is a private opinion or statement and is nobody's fault but mine. No person, employer, or govt. should try to take credit for it!

From boatanchors@theporch.com    Wed Aug 21 13:49:08 1996  
From: "Edward J. Zeranski" <ejz@nosc.mil>  
Subject: RE: Mid West BA Nest  
Message-ID: <2.2.32.19960821160645.00723bc0@marlin.nosc.mil>

>Return-Path: <roecker.greg@ist.mds.lmco.com>  
>From: roecker.greg@ist.mds.lmco.com  
>Date: Wed, 21 Aug 96 11:19:15 PDT  
>Sender: greg@roeckerpc.acc.atl.mmc.com  
>Subject: RE: Mid West BA Nest  
>To: ejz@nosc.mil

>

> Omaha with the following BA source.

>>

>>            Ladd Electronics  
>>            111 N41st ST  
>>            Omaha Nebraska  
>>            402-556-3023

>>

> He is

>>planning to go out of biz because of competition from mail  
>order places.

>-----End of Original Message-----

>

>Just as an FYI . . . I am from Omaha, but have not lived there  
>for 20 years . . . but annually, we have to get in the family  
>truckster and visit the homeland, and ALL the relatives in  
>Omaha . . . anyway, I have been going to Ladd Electronics every

>year since I left, (and for 10 years before that) and Frank  
>Ladd (the owner) says the same thing, that he is going out of  
>business . . . and that if you want anything, you best get it  
>now . . . I think its his standard line to hams he doesnt  
>recognize as "local patrons" . . . trying to put the squeeze on  
>you, to get you to bite . . .

>

>In fairness, he does have some interesting items for sale.  
>Last summer, he had an NC-183D with speaker for \$295. That  
>seems to be the going price for a clean rig with speaker. He  
>had a TR-4 that had seen better days for \$325 . . . kinda high.

>

>Anyway, your mileage may vary, but I thought I'd pass along  
>another data point on Ladd. Now, if we could only re-open WRL  
>over in Council Bluffs across the river, and be able to pick up  
>a new Globe King 500, or Galaxy V MKII . . . . .

>

>73,

>

>Greg / N40SJ

>

>-----

>Greg Roecker

>E-mail: roecker.greg@ist.mds.lmco.com

>Voice: 770.668.1245

>Fax: 770.698.5220

>Date: 8/21/96

>Time: 11:19:15 AM

>This message was sent by Chameleon

>-----

>

>

>

Edward J Zeranski NRaD code 821 ejz@marlin.nosc.mil

619 553-2640

DSN 553-2640

FAX 553-1394

STU-III 2640

From boatanchors@theporch.com Wed Aug 21 20:42:32 1996

From: djw@unlinfo.unl.edu (Daniel Wright)

Subject: RE: Mid West BA Nest

Message-ID: <9608212020.AA17309@unlinfo2.unl.edu>

Ed.....'er Someone sed speakin' about:

>>> Ladd Electronics  
>>> 111 N41st ST  
>>> Omaha Nebraska  
>>> 402-556-3023  
>>>  
>> He is  
>>>planning to go out of biz because of competition from mail  
>>order places.

Uhhh-huh,yeah..

>>(and for 10 years before that) and Frank  
>>Ladd (the owner) says the same thing, that he is going out of  
>>business . . . and that if you want anything, you best get it  
>>now . . .

I can second this and add to it. About ten years ago I bought some nice stuff from Frank,an EFJ Invader,an SX-101,an NC-303 w/spkr and some other miscellaneous small stuff. He was goin' out of business back then (1986),despite the fact that he ran a weekly ad in the Omaha Weird-Hreald wanting to buy "used gear". He would buy old tube gear and try to resell it. When I called him once to offer to sell him some of my BA stuff he refused and said all that tube stuff was junk and not worth anything. I blew him off for a few years and just this last spring while working in Omaha,I decided to pay him a visit. I was suprised he was still in binness. I saw the NC-183D with speaker that was mentioned. It was very nice with original manual and matching speaker and Frank said that it worked just fine. I went away and came back a few weeks later with cash money in my pocket. The '183D was still there,but what I also found was a nasty,bitter-BITTER,little old man. I think 'ol Frank finally lost it. He went on a tirade about sellin' HT's to "greedy hams" and ranted and raved about the ham radio business. He wouldn't even talk to me about buying any of the old gear he had. He was too busy spewing his bitterness at me. He had a pictue of the new place where he was moving his business "next week" and he was only gonna let people in by appointment and they had to guarantee that they would buy something first!! Needless to say I thought this was the end of "Ladd Electronics"! Now...I see from a post to the list that he is still in his old location and going of of business...."next week?"

Hmmmmmm.....

Dan -- WA0JRD ..  
djw@unlinfo.unl.edu

From boatanchors@theporch.com Wed Aug 21 09:35:39 1996  
From: "Allan Fritsche" <fritsche@msn.com>  
Subject: Never Say Die - HQ-145  
Message-ID: <UPMAIL03.199608210053570479@msn.com>

Well Gang, I ran out of coils to repair and now I have to remove some of the ones I thought I fixed in the beginning. Darn.F\_\_\_ , S\_\_\_.

Will somebody just come over to the shack and blow my brains out.  
All I wanted was a general coverage Hammer, But this is becoming an ordeal.  
But, I won't give up because of pride, stay tuned.

Your Friend Al  
fritsche@msn.com

From boatanchors@theporch.com Wed Aug 21 09:35:39 1996  
From: "Barry L. Ornitz" <u856010@eastman.com>  
Subject: Re: Oil-Filled Capacitors  
Message-ID: <Pine.ULT.3.91.960820210849.10531B-1000000@dua150.kpt.emn.com>

On Tue, 20 Aug 1996, Steve Ellington asked:

> 1. What is the normal life span for an oil filled cap?

When used within their ratings, their normal life span is far longer than ours!

> 2. What would cause them to fail?

Using them beyond their ratings - i.e. excessive voltage or temperature, puncture or other breach of the sealed case, moisture ingress, etc.

> 3. Where can replacements be found?

Mendleson Electronics used to carry a large line of them. New ones are still sold (at big bucks and without PCB's). Motor start and motor run capacitors are still readily available.

> 4. What is the difference in dc and ac (motor starting) capacitors?

AC capacitors are rated for their current handling ability (actually electrolytic capacitors are also rated for ripple current). A motor-run capacitor would be rated for a certain current, voltage, and temperature maximum. Motor-start capacitors only draw considerable current during the time a motor comes up to speed (running current is low). AC oil capacitors work quite well with DC, and their DC voltage rating is generally about 2.5 times their AC voltage rating. [Dry motor-start

non-polarized electrolytics should NEVER be operated continuously as I once discovered the hard way!]

> 5. Would it be advisable to replace an electrolytic with an oil cap where  
> possible?

If you have the space, they should normally work well. The problem is that an electrolytic packs a lot of capacitance into a tiny volume.

Oil-filled capacitors are somewhat self-healing depending on their construction. With metallized paper construction, a short will normally vaporize the metallization and clear itself. Oil seeping back into the area will tend to keep the spot from arcing over again. However, each time a short clears, conductive material contaminates the oil and the capacitor's dielectric losses will increase. Eventually such a capacitor will fail.

Small oil-filled capacitors, even if they contain PCB's, are generally safe to continue using if the case is intact and not leaking. But you do run a risk... Ask Bobbi Barmore if you want to hear a true horror story about a failure of a PCB-filled capacitor. NO radio engineer ever deserves the grief she had with the failure and eventual clean-up, except if they beat their kids and kick their dogs - and Bobbi loves animals. In all seriousness though, Bobbi's story should serve as an important warning so I hope she will repeat it.

73, Barry L. Ornitz WA4VZQ ornitz@eastman.com

From boatanchors@theporch.com Wed Aug 21 13:49:08 1996  
From: "Barry L. Ornitz" <u856010@eastman.com>  
Subject: Public apology for not proof-reading...  
Message-ID: <Pine.ULT.3.91.9608211115050.10943C-100000@dua150.kpt.emn.com>

In an earlier message about amplifier output matching circuits, I included the following on the end. Talk about stupidity. I failed to proof-read this adequately and the meaning came out completely wrong.

>For a discussion of inductor losses that many of us might want to ignore  
>latest QEX magazine. Written by our own Kevin Schmidt, W9CF, the  
>article is: "Estimating T-Network Losses at 80 and 160 Meters". While  
>not directly aimed at us Boatanchorites, it does make you wonder how  
>much power we might be turning into heat in our surplus BC-375 rotary  
>inductors...

What I MEANT to say, and I offer my public apology to Kevin who did a wonderful job on the article, was:

"For a discussion of inductor losses that many of us might want to ignore,  
BUT SHOULD NOT, PLEASE READ THE latest QEX magazine. ..."

Please do NOT ignore Kevin's article because of MY stupid slip! His  
articles in QEX have been one reason I continue to subscribe to it.

73, but with egg on my face,  
Barry L. Ornitz WA4VZQ ornitz@eastman.com

From boatanchors@theporch.com Wed Aug 21 09:35:39 1996  
From: Mikhael Brown <mikhael@hpcmmp13.sj.hp.com>  
Subject: R-390A BFO problem  
Message-ID: <199608210119.AA074260359@hpcmmp13.sj.hp.com>

Just got an R-390A, but the BFO does not zero beat at the center position.  
Turning it to the right (- direction) makes the tone lower but it is still  
very high (about 8 to 10 KHz). Is this adjustable or is it a sign of  
something else to look for? Anyone have any ideas as to what to look for?

Mike N6WIG

--  
mikhael@hpcmmp13.sj.hp.com

From boatanchors@theporch.com Wed Aug 21 09:35:39 1996  
From: John Kolb <jlkolb@cts.com>  
Subject: Re: R-390A BFO problem  
Message-ID: <Pine.SCO.3.91.960820223531.29021B-1000000@sd.cts.com>

On Tue, 20 Aug 1996, Mikhael Brown wrote:

> Just got an R-390A, but the BFO does not zero beat at the center position.  
> Turning it to the right (- direction) makes the tone lower but it is still  
> very high (about 8 to 10 KHz). Is this adjustable or is it a sign of  
> something else to look for? Anyone have any ideas as to what to look for?

Can't find anything in my R-390A manual - so this is from memory.  
If I'm wrong, I'm sure I'll hear about it. :)  
The procedure that works on many types of receiver is to center  
a station within the passband - xtal calibrator works well for this.  
Turn on the BFO and remove the BFO knob. Turn the bfo shaft for  
zero beat, and put the knob back on with the index mark on zero.  
The R-390, like many receivers, has an inductor with a multiturn core  
for tuning the BFO, and uses a mechanical limit on the knob to



keep the core from turning more than one complete turn.

John Kolb

From boatanchors@theporch.com Wed Aug 21 09:35:39 1996  
From: Mikhael Brown <mikhael@hpcmp13.sj.hp.com>  
Subject: R-390A BFO problem, Thanks!  
Message-ID: <199608211348.AA087945291@hpcmp13.sj.hp.com>

Thanks to everyone who came back with a solution to the BFO problem on my R-390A. Looks like it is a simple fix. Just loosen the knob and rotate the shaft. Having this knowledge available in this group at our finger tips is really great! Thanks to everyone for your help!

Mike N6WIG  
--  
mikhael@hpcmp13.sj.hp.com

From boatanchors@theporch.com Wed Aug 21 09:35:39 1996  
From: Brien Pepperdine <pepperb@gov.on.ca>  
Subject: SB-10 seems taken  
Message-ID: <Pine.OSF.3.93.960821084034.21860C-100000@govonca2.gov.on.ca>

To all those, and others, who wrote re. interest in the SB-10:

The fellow with first right of refusal has accepted to buy the spare SB-10 I came across.

About five persons did express keen interest in obtaining it, and I have retained all names and email addresses on record.  
If and when any SB-10 shows up at a price I think the BA list is comfortable with (50 US dollars or so seemed to not distress anyone), I will get it and flog to those who did express interest.

Thanks for the messages letting me know I would be doing right by acquiring and reselling, at no profit I add, on spec to BA List, and that there is interest. For the moderate cost I will take it as a given that there is interest in any more I do come across.

Brien  
Toronto

pepperb@gov.on.ca

From boatanchors@theporch.com Wed Aug 21 09:35:39 1996  
From: "F r6fqHo!ht" <75121.100@CompuServe.COM>  
Subject: Scope tube  
Message-ID: <960821075551\_75121.100\_IHV34-3@CompuServe.COM>

<Sandy said>

<I wouldn't go to the trouble of changing things around for the  
<2AP1 replacement for the 908! Easiest would be to find a 3AP1. The 908  
<is a 3" tube not a 2" tube.

Is the 3AP1 the same as a 3ADP1? I have the 3ADP1 if it is useable for the  
replacement. Anybody know?

Regards from Hawaii,  
Raymond J. Cote

From boatanchors@theporch.com Wed Aug 21 09:35:39 1996  
From: Joe Serocki <JSEROCKI@allstate.com>  
Subject: Re: Shipping to Canada -more tales of woe -Reply -Reply  
Message-ID: <s21acdb1.052@allstate.com>

I am happy you are fed up with it. I wanted to point out some tails of woe  
I had, so that others may avoid them.

I will be contacting the Canadian postal service again, but the red tape is  
amazing.

I want to thank all the people who had kind words and words of  
encouragement and suggestions. Some of them may be helpful to others  
in the future.

>>> "Walter Fairclough" <wfairclo@netcom.ca> 08/20/96 03:17pm >>>  
Getting fed up hearing about shipping to Canada. Canada happens to be  
one  
of the US's largest trading partner. Think about it!

-----  
> From: Joe Serocki <JSEROCKI@allstate.com>  
> To: Multiple recipients of list <boatanchors@theporch.com>  
> Subject: RE: Shipping to Canada -more tales of woe -Reply  
> Date: Tuesday, August 20, 1996 9:28 AM  
>

> I will reiterate my feelings/experiences.  
>  
> If all goes well, it works well enough. The problem is, based on the  
postal  
> services of both countries, all does not go well more than 95% of the  
> time.  
>  
> Assuming a problem, then we run into some real sticky situations,  
> whereby neither side of the fence will take responsibility for the  
> problems themselves, and neither side will pay up.  
>  
> BEWARE is the only comment I have.  
>  
>  
> >>> MEC <danmec@inet.uni-c.dk> 08/20/96 12:30am >>>  
> There seem to be a general misconception in USA about shipping  
> overseas.  
> It is no problem at all. In order to prove it, I visited a BA-er in  
> California last year when on a businessss trip. I wanted to buy an old  
> German  
> WW2 radio from him but he maintained it was too much trouble to ship  
to  
> denmark.  
>  
> We packed the radio and went down to the local post office. After  
> having  
> filled out the proper forms and paid the postage, we left 5 minutes  
later.  
> The radio arrived about 5 weeks later by surface parcel post.  
> No problem.  
>  
> 73 rag 0Z8R0  
>

From boatanchors@theporch.com Wed Aug 21 13:49:08 1996  
From: "Roberta J. Barmore" <rbarmore@indy.net>  
Subject: Re: Shipping to Canada -more tales of woe -Reply  
Message-ID: <Pine.SUN.3.91.960821085410.4246B-100000@indy3>

Hi!

I've been reading all the tales of woe about ba-trading betwixt Canada  
& the US.

Tch, it's mostly silly; use the postal services of the various

countries and your total risk is no worse than using a national postal service \*within\* a country. As far as I know, you can even \*insure\* international mail.

I have done business and/or swapping with individuals & outfits in Canada, the UK, and Botswana, and the only "problem" I have found is the difficulty & expense of International Money Orders--the banks want too much for 'em and USPS here in Indy only sells the postal version at a few, awkward locations. The fix to this is to get \*real\* old-fashioned and send cash, as you can buy most anybody's folding money from your bank at the current exchange rate. It may sound risky but it's worked just fine from me, though businesses are sometimes mystified at my suggestion that the change go to their snack fund, a local charity, or if they \*really\* feel like sending it back, flung in my general direction from the nearest open field. Most coins cost too much to mail!

...For me, this is a hobby; I'm not in it to make a profit and if I send somebody, say, fifteen Pounds Sterling for a widget they list at fourteen-and-thirty, I've already made up my mind the thing's worth fifteen to me. As somebody already pointed out, this stuff is junk & wastepaper as far as real worth to the big world goes, and we play with it \*for\* \*fun\*.

While it would be nice if small-scale international trade via the mails (and otherwise) was a bit easier (I, for one, have been a bit vexed ever since the US & Canadian dollars drifted far enough out of sync to matter [a good reason to buy Canadian, maybe we can level 'em out!]), it's not \*that\* hard and is not, in fact, the result of any Horrible Plot by shippers or governments. In fact, it's easier now than it ever was!

73,  
--Bobbi

(Oh, okay, one small problem--one of my neighbors bought a colour TV in Canada and when he got it here and turned it on, it was only in color; but that's the only real glitch. It's not as if they were tryin' to turn the elevators into lifts or anything....)

From boatanchors@theporch.com Wed Aug 21 13:49:08 1996  
From: Peter Ferrand <petef@sprynet.com>  
Subject: Re: Shipping to Canada -more tales of woe -Reply  
Message-ID: <2.2.32.19960821143436.0076b4f8@m3.sprynet.com>

At 09:15 AM 8/21/96 -0500, Roberta J. Barmore wrote:  
<snip>

> The fix to this is to get \*real\* old-fashioned and  
> send cash, as you can buy most anybody's folding money from your bank at  
> the current exchange rate. It may sound risky but it's worked just fine  
> from me, though businesses are sometimes mystified at my suggestion that

>the change go to their snack fund, a local charity, or if they \*really\*....

Yes, this works with people you can trust. What I do is even simpler - I send them American cash. It's amazing how the entire world knows exactly what to do with our money!

I'd tell em to use the change to buy a Coke, or a Big Mac, or something else American just to keep in the spirit of things.

-Pete  
WB2QLL  
petef@sprynet.com

From boatanchors@theporch.com Wed Aug 21 09:35:39 1996  
From: John Kolb <jlkolb@cts.com>  
Subject: Re: Signal distribution...  
Message-ID: <Pine.SC0.3.91.960820224552.29021C-1000000@sd.cts.com>

> >Can any of you old-time tube designers or hams point me to a design or  
> >schematic for a such a device? Using tubes I have bazillions of like  
> >6080's, 6DJ8's, 5879's, 12AT7's, 6AU5's (some of these aren't RF tubes,  
>  
> I am interested in the same thing, as I have a few receivers I want  
> to hook up to the same antenna. Not merely to please myself but also

I wrote up a 3500 byte description of how and why to build a passive splitter to do this. Too long and off topic to post, so will e-mail it to anyone that wants it.

I have a limited number of Minicircuits Labs PSC-4-3 4:1 splitters, 250 kHz to 250 MHz available for \$ 8.00 postpaid.

Last time this subject came up, someone suggested a bank of parallel 807's to make a pre-amp that wouldn't cross mod. If anyone has such a circuit, I'd like to give it a try.

73

John Kolb KK6IL jlkolb@cts.com

From boatanchors@theporch.com Wed Aug 21 09:35:39 1996  
From: W7FG <w7fg@eigen.net>  
Subject: Sonar SRT-120 w/VFO  
Message-ID: <199608210509.AAA15146@newton.eigen.net>

I picked up a SRT-120 with matching VFO at Alburquerque hamfest this weekend (not as neat as SRT-14 found there). The SRT-120 has fascinated me since washing panel and cabinet, it looks new.

Does anyone have info on the unit??

Gary

W7FG Vintage Manuals  
3300 Wayside Drive  
Bartlesville, Oklahoma 74006

Telephone: 918-333-3754  
Orders Only: 800-807-6146

HomePage: <http://eigen.net/w7fg>

From boatanchors@theporch.com Wed Aug 21 13:49:08 1996  
From: Neal McEwen <nmcewen@metronet.com>  
Subject: Re: Sonar SRT-120 w/VFO  
Message-ID: <199608211802.AA27228@metronet.com>

>  
> I picked up a SRT-120 with matching VFO at Alburquerque hamfest this  
> weekend (not as neat as SRT-14 found there). The SRT-120 has  
> fascinated me since washing panel and cabinet, it looks new.

>  
> Does anyone have info on the unit??  
>

I was the third owner of one of these about 35 years ago. I remember that it had a 5894 in the final with a clamp tube. And it had a pair of 6L6s in plate modulation. It had a very good sound on AM.

I do remember that the VFO was very unstable. They used an external box with an LC circuit interfaced with the crystal oscillator stage. I could never get it to settle down and was forced to use xtals. Somewhere I still have my 7050 rock!

My Sonar came with a homebrew power supply. As I recall there was a

factory power supply available.

The Sonar SRT 120 remained in service until about 1962, when I replaced it with an ART-13 !!!!!!! All those keying relays made one hell of a racket on CW. Even used it FSK with my model 15 for a while.

The next rig was a well worn Ranger I and then a Ranger II. I remember working KH6 on 160 meters with the II.

Guess that's more than you asked for !!!!!

From boatanchors@theporch.com Wed Aug 21 09:35:39 1996

From: Terry Burge <terrybu@netman.ENS.TEK.COM>

Subject: SX-88 forsale

Message-ID: <9608210001.AA14548@netman.ENS.TEK.COM>

Gang,

I got Michael's permission to send this to the list so for all of you wanting an SX-88 check this out. The price tag was just to high for me to consider it seriously. Please don't respond to me but to Michael at ...

<mscanlan@barepower.net>

Thanks,

Terry

----- Forwarded Message

Subject: SX-88 Info - sx-88.jpg (0/1)

From boatanchors@theporch.com Wed Aug 21 20:42:32 1996

From: Terry Burge <terrybu@netman.ENS.TEK.COM>

Subject: SX-88 forsale

Message-ID: <9608212010.AA27067@netman.ENS.TEK.COM>

Gang,

I got Michael's permission to send this to the list so for all of you wanting an SX-88 check this out. The price tag was just to high for me to consider it seriously. Please don't respond to me but to Michael at ...

<mscanlan@barepower.net>

Thanks,

Terry

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Subject: SX-88 Info - sx-88.jpg (0/1)

From boatanchors@theporch.com Wed Aug 21 09:35:39 1996  
From: "Watts Industries Canada Inc." <mannnc@idirect.com>  
Subject: Tampa Fla. BA Haunts  
Message-ID: <01BB8ED5.20C9E0A0@fatenet19.idirect.com>

Hi gang, next week I will be in Tampa on business (tough life for a Canadian,eh!).  
I may have some evenings free, so can anyone recommend any good surplus places.

TIA

Charles  
mannnc@idirect.com

From boatanchors@theporch.com Wed Aug 21 20:42:32 1996  
From: "Allan Fritsche" <fritsche@msn.com>  
Subject: Technical disertation of Hammurland Coils  
Message-ID: <UPMAIL03.199608220019000618@msn.com>

They SUCK  
Al Fritsche

Now from what Ive learned. It appears that most of the Hammer coil slugs that Ive worked on, i.e. HQ-170A and the Bastard HQ-145 have 1 thing in common. The paper coil forms appear to have a curve in them after removing from the can. I really don't think the slugs are split but trying to run it up and down in the coil form will strip the hex hole adjustment and that is as almost just as bad.

Also if the transformer has the built in caps and you can't adjust to resonance don't guess that they are shorted or open. If they are shorted the coil form resistance is such a small value that on some meters(i.e. Simp260) it might appear O.K. Easy to overlook. YOU must remove the can (real Bitch) on most and take completely apart and remove the Mica sheets that make up the trimmer caps and then use external caps, best Silver Mica or Ceramic NPO's.. Also on Slugs, Ive had some, where the slug got stuck and after a liberal soaking of WD 40 and waiting over nite was able to turn a fraction or so. Feeling hopeful I forced it more and stripped all the Litz coil wiring from the inner connections. About a 2 hour job to repair and its one of those things that you are never sure about will ever work well again.

All in all, its fun to work on something you think you can fix, but sometimes I need some morale support to continue. Thats what I got from this FINE group of fellows( and 1 girl).

Thanks to All  
fritsche@msn.com



From boatanchors@theporch.com Wed Aug 21 13:49:08 1996  
From: "D. Ragsdale" <doragsda@oboe.aix.calpoly.edu>  
Subject: Thermistors in AC line??  
Message-ID: <9608211421.AA39697@oboe.aix.calpoly.edu>

Hello all, I lifted this from the tube audio newsgroup. Does this seem like sound reasoning to the engineering types out there and would this be a reasonable practice when restoring BA's?

-- pieces snipped --

>  
>One more very nice thing to do is to install a thermistor in the AC  
>line.  
>These can be obtained in various values. There are basically inrush  
>current limiters and will provide a great soft start to the amp every  
>time, PLUS they will slightly drop the line voltage, which is great for  
>your tube filaments and other things. Today, most AC line voltages are  
>a  
>bit higher than when these amps where made, and the thermistor  
>compensates  
>for this the best and ONLY LOGICAL way. They are available in a host of  
>values (hot/cold ohms ratings) and amperage ranges. Since they have a  
>resistance value even when hot, they (thankfully!) are quite efficient  
>at  
>reducing the AC line voltage!!!!  
>  
>DIGIKEY has a great selection. They are ridiculously inexpensive at  
>about  
>\$2.50 each. They reach full conduction in about 40 seconds!!  
>  
>Thermistors are one of the BEST things you can add to an amplifier. It  
>stopped my buddies 500 watt solid state amp from blowing the circuit  
>breaker on start up! They are absolutely GREAT and have NO effect on  
>the  
>amp at all, other than the voltage limiting. McIntosh used them for  
>years!! An automatic variac!!!! I beleive the one used in the MC275 is  
>6  
>ohms cold, and 1/2 ohm hot. It has about a 5 amp rating.

73

Dave  
KF6BOM

David Ragsdale, R.E.H.S.

Risk Management

California Polytechnic State University, San Luis Obispo, CA  
du651@oasis.calpoly.edu or doragsda@cymbal.aix.calpoly.edu

From boatanchors@theporch.com Wed Aug 21 13:49:08 1996  
From: Bill Sorsby <bill.sorsby@dlep1.itg.ti.com>  
Subject: Re: Thermistors in AC line??  
Message-ID: <199608211512.KAA16599@dlep1.itg.ti.com>

At 09:21 AM 8/21/96 -0500, Dave Ragsdale wrote:  
>... Does this seem like  
>sound reasoning to the engineering types out there and would this be a  
>reasonable practice when restoring BA's?

>>One more very nice thing to do is to install a thermistor in the AC  
>>line.

Yes, it's a very good practice. I've found it to work quite well. They'll  
really tame a power supply that pulls a surge and goes KERCHUNKKK!! when  
powered up.

Digi-Key sells some thermistors which are designed and labelled as Inrush  
Current Limiters. These are rated for max current handling and cold/hot  
resistance, so it's easy to figure out what value to use. They're  
relatively cheap, too. The ten piece quantity price is less than \$2.00 for  
most, so it won't cost an arm and leg to put 'em in all the BoatAnchors you  
love.

Regards,  
Bill Sorsby, N5BU

\*\*\*\*\*  
bill.sorsby@dlep1.itg.ti.com  
Views expressed herein are no one's fault but mine.  
\*\*\*\*\*

From boatanchors@theporch.com Wed Aug 21 20:42:32 1996  
From: Paul Bernhardt <bern@ppdu.nrl.navy.mil>  
Subject: TS-520SE Prices  
Message-ID: <Pine.A32.3.91.960821162737.42284A-100000@ppdu.nrl.navy.mil>

Gang,  
Thanks for the price range for the TS-520SE. I will offer \$250 or 300 and

see what happens.

Sincerely, Paul Berhardt, KF4FOR

From boatanchors@theporch.com Wed Aug 21 09:35:39 1996

From: Tom Wachtel <twachtel@i1.net>

Subject: Viking II Manual

Message-ID: <321B0DEB.3E8D@i1.net>

Hi Gang:

Just acquired a fine old Johnny Viking II transmitter.  
Anyone out there willing to duplicate a manual? Will pay for  
duplication and postage.

Tnx de KB0WUP/Tom

From boatanchors@theporch.com Wed Aug 21 20:42:32 1996

From: Dave Kelley <aa7tq@primenet.com>

Subject: Want:Collins power supply

Message-ID: <321B7F63.3964@primenet.com>

Anyone have a Collins 516F-2 power supply for sale?  
(I think that's the right model number)

I have a Swan supply now and would be interested in  
selling it as soon as I find a Collins to replace  
it.

Please e-mail direct.

73

Dave, AA7TQ

From boatanchors@theporch.com Wed Aug 21 20:42:32 1996

From: Brien Pepperdine <pepperb@gov.on.ca>

Subject: What xmtrs used with 390A and such? Historically.

Message-ID: <Pine.OSF.3.93.960821154403.18147C-100000@govonca2.gov.on.ca>

I was talking with a friend of mine the other day who I had given a disk  
full of the 390A archive Jan Skirrow put together from about a year or so  
of BA List postings. He really is enjoying reading the collection, Jan!  
Thanks. (BTW, both sets of archives are available on Jan's home page, so  
don't feel abandoned if you missed it when announced and offered to be

sent via mail enclosure. You can download it easily still.)

But.. he said "I wonder if anyone could tell what sort of transmitters those 390As would have been used with?"

So, I am asking - not to begin some hunt for military xmtrs that 'fit' as proper and respectful companions for the 390A (not room for those monster racks I suspect will be involved), but just for the interest of anyone curious as to what the receiver were 'intended' to be paired up with.

Descriptions of size, use, power, application, mode etc. would be interesting, if indeed they are interesting. I realize that many modes and services would have been involved, but if anyone does have a good tale to tell, please, I for one have an ear for the story.

Brien  
Toronto

From boatanchors@theporch.com Wed Aug 21 20:42:32 1996

From: "Edward J. Zeranski" <ejz@nosc.mil>

Subject: Re: What xmtrs used with 390A and such? Historically.

Message-ID: <2.2.32.19960821201959.00708918@marlin.nosc.mil>

>

>But.. he said "I wonder if anyone could tell what sort of transmitters

>those 390As would have been used with?"

>So, I am asking - not to begin some hunt for military xmtrs that 'fit' as

>proper and respectful companions for the 390A (not room for those monster

>racks I suspect will be involved), but just for the interest of anyone

>curious as to what the receiver were 'intended' to be paired up with.

>

> SRT and WRT-2 transmitters were common on Navy ships when I was in the service. Both are large heavy units made for the shipboard environment and long hours online. I have the specs for the SRT series and WRT-1 and 2 at home in contemporary Navy pubs. August Johnson recently posted to BA about his restored SRT-14, <http://www.whitemtns.com/~kg7bz/srt14.html> had some neat photos of the TX.

Ed Zeranski    ejz@marlin.nosc.mil, work  
                  ezeran@cris.com        home

Wooden Boats, Tube Receivers, Rusty Old Trucks, The Good Stuff!

This is a private opinion or statement and is nobody's fault but mine. No person, employer, or govt. should try to take credit for it!

From boatanchors@theporch.com Wed Aug 21 09:35:39 1996  
From: Mikhael Brown <mikhael@hpcmmp13.sj.hp.com>  
Subject: WTB R-390A name plate & covers  
Message-ID: <199608210112.AA074119965@hpcmmp13.sj.hp.com>

Subject says it all. I am in need of a name plate and covers for an R-390A receiver.

Mike N6WIG

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--
mikhael@hpcmmp13.sj.hp.com
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From boatanchors@theporch.com Wed Aug 21 09:35:39 1996  
From: "Gary H. Harmon, Jr." <gharmon@txdirect.net>  
Subject: WTB: AF-68  
Message-ID: <199608210447.XAA18591@legend.txdirect.net>

A local friend is looking for a Elmac AF-68 transmitter. He has the receiver and power supply already. If you have one and perhaps a manual, please let me know condition and asking price.

Thanks in advance and 73,  
gary

[illegible]

From boatanchors@theporch.com Wed Aug 21 09:35:39 1996  
From: "Frank R. White" <whitefra@tyrell.net>  
Subject: WTB: AR-67 Schematic  
Message-ID: <Pine.SUN.3.91.960820222753.19369C-100000@tyrell.net>

Hello BA group,

A friend of mine needs at least a schematic for the AR-67. Can anyone help?? Normal coping and mailing costs would be appreciated. Please reply

to me as the ham in need doesn't have email (yet).

tnx es 73,

Frank  
KB0TG  
whitefra@tyrell.net

From boatanchors@theporch.com Wed Aug 21 09:35:39 1996  
From: "William C. Robbins" <billrobb@serv01.net-link.net>  
Subject: WTB: Heath Gear  
Message-ID: <199608202249.SAA29281@serv01.net-link.net>

I have not done this here for a while. I am a fairly new Heathkit collector looking for older Heath gear. Also looking for Heath catalogs and unassembled kits.

Of specific interest would be:

AC-1  
AR-1  
AR-2  
AT-1  
DX-20  
DX-35  
DX-40  
GW-30  
HA-20  
HD-19  
HO-10  
HO-13  
HO-5404  
HW-99  
HX-11  
KL-1  
PM-1  
SB-500  
SB-640  
SS-9000

If you have any of these or others to sell or trade, please let me know. I also have several duplicate Heath items in my collection that I might trade (or outright sell). You may also call days 616/345-7988; evenings 616/375-7978.

I love this boatanchors group.

73 de Bill

William C. Robbins, WA8CDU  
billrobb@serv01.net-link.net

\*\*\*Heathkit Collector\*\*\*

From boatanchors@theporch.com Wed Aug 21 20:42:32 1996

From: knudsen@gvmail.ih.lucent.com

Subject: Yet Another R390A Data Item (YARDI)

Message-ID: <9608212239.AA03091@bock.ih.lucent.com>

I was chatting privately with wallace about my R390A whose nameplate was,  
uh, salvaged by some previous owner, so I can't identify the mainframe builder.

He pointed out that different makers used different size nameplates,  
with different screw spacings. Soooo, if we could collect the data  
for various nameplates, we could further narrow down the "unbranded" sets.

Just four numbers -- height and width of plate,  
plus vertical and horizontal screw spacings.

BTW, with work even the RF deck can be swapped out, so the  
mainframe ID may mean just that -- who stamped out the chassis and laced and  
soldered the cables. No idea who made my RF deck either. 73, mike k aa9rg